

HPD UNIQUE IDENTIFIER: 759926208512

HPD UNIQUE PRODUCT ID: Not provided.

CLASSIFICATION: 08 81 13 Decorative Glass Glazing

PRODUCT DESCRIPTION: This document covers Goldray's Dichroic Glass monolithic and laminated only. This product of 6mm (1/4") to 19mm (3/4") in total thickness is composed of a monolithic panel or at least two sheets of glass with an interlayer fusing them. The dichroic panel is suitable for interior and exterior applications for commercial and residential projects. It is available in various colors. The glass can be Float, tempered, and laminated. Goldray's Dichroic Glass is commonly used as a canopy, partitions, doors, railings, and fenestration. The panel sizes vary between 12"x12" and 72" x 144", subject to the glass makeup.

Section 1: Summary

Nested Method / Product Threshold

CONTENT INVENTORY

Inventory Reporting Format	Residuals/Impurities Evaluation	For all contents above the threshold, the manufacturer has:
→ Nested Materials Method	Completed in 3 of 3 Materials	
Threshold Disclosed Per	Explanation(s) provided for Residuals/Impurities?	Characterized
→ Product	Yes	Provided weight and role.
Threshold Level		Screened
→ 100 ppm		Provided screening results using HPDC-approved methods.
		Identified
		Provided name and CAS RN or other identifier.

CONTENT IN DESCENDING ORDER OF QUANTITY

Summary of product contents and results from screening individual chemical substances against HPD Priority Hazard Lists and the GreenScreen for Safer Chemicals®. The HPD does not assess whether using or handling this product will expose individuals to its chemical substances or any health risk. Refer to Section 2 for further details.

NESTED MATERIAL | MATERIAL OR SUBSTANCE | RESIDUAL OR IMPURITY

GREENSCREEN SCORE | HAZARD TYPE

SODALIME GLASS [GLASS, OXIDE, CHEMICALS LT-UNK SODA ASH BM-2 EYE | MAM | SKI CALCIUM MAGNESIUM CARBONATE NoGS CALCIUM CARBONATE BM-3dg SODA LIME LT-UNK SKI | EYE SULFURIC ACID DISODIUM SALT LT-UNK MAM CHROMIUM, METAL AND CHROMIUM(III) COMPOUNDS LT-UNK SKI SODIUM NITRATE LT-UNK LAMINATING INTERLAYER (WHEN LAMINATED) [ACETIC ACID ETHENYL ESTER, POLYMER WITH 1,1-BIS(ETHENYLOXY)BUTANE AND ETHENOL LT-UNK HEXANOIC ACID, 2-ETHYL-, 1,2-ETHANEDIYLBIS(OXY-2,1-ETHANEDIYL) ESTER LT-UNK CALCIUM CARBONATE BM-3 EYE HEXANEDIOIC ACID, 1,6-BIS(2-BUTOXYETHYL) ESTER NoGS DICHROIC COATING [MIXED METAL OXIDES NoGS]

Number of Greenscreen BM-4/BM3 contents ... 2

Contents highest-concern GreenScreen score(s) (BM-1, LT-1, LT-P1) ... None

Nanomaterial ... No

INVENTORY AND SCREENING NOTES:

This report discloses hazards associated with the substances present at a minimum amount of 100 ppm in the product.

VOLATILE ORGANIC COMPOUND (VOC) CONTENT

VOC Content data is not applicable for this product category.

COMPLIANCE See Section 3 for additional listings.

VOC emissions: California Department of Public Health (CDPH) Standard Method v1.2: Private Office and School Classroom.

CONSISTENCY WITH OTHER PROGRAMS

Pre-checked for LEED v4 Option 1.

Pre-checked for LEED v4 Option 2.

Pre-checked for LEED v4.1 Option 1.

This section lists contents in a product based on specific threshold(s) and reports detailed health information including hazards. This HPD uses the inventory method indicated above, which is one of three possible methods:

- Basic Inventory method with Product-level threshold.
- Nested Material Inventory method with Product-level threshold
- Nested Material Inventory method with individual Material-level thresholds

Definitions and requirements for the three inventory methods and requirements for each data field can be found in the HPD Open Standard version 3.0, available on the HPDC website at: www.hpd-collaborative.org/hpd-3-0-standard

SODALIME GLASS		%: 90.0000 - 100.0000		
PRODUCT THRESHOLD: 100 ppm		RESIDUALS AND IMPURITIES EVALUATION COMPLETED: Yes		MATERIAL TYPE: Other: Not Set
RESIDUALS AND IMPURITIES NOTES: Residuals and Impurities are considered and noted when the concentration is above 100ppm				
OTHER MATERIAL NOTES:				
GLASS, OXIDE, CHEMICALS				ID: 65997-17-3
HAZARD DATA SOURCE: Pharos Chemical and Materials Library			HAZARD SCREENING DATE: 2026-01-25 16:57:15	
%: 60.0000 - 100.0000	GreenScreen: LT-UNK	RC: None	NANO: No	SUBSTANCE ROLE: Glass component
HAZARD TYPE	LIST NAME AND SOURCE		WARNINGS	
None found			No warnings found on HPD Priority Hazard Lists	
ADDITIONAL LISTINGS	LIST NAME AND SOURCE		NOTIFICATION	
EXEMPT	European Union / European Commission (EU EC)		EU - REACH Exemptions	
			Exempted from REACH Annex V listing due to intrinsic safety	
SUBSTANCE NOTES: The Concentration varies with the glass composition and manufacturer.				

SODA ASH				ID: 497-19-8
HAZARD DATA SOURCE: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2026-01-25 16:57:16		
%: 0.0000 - 20.0000	GreenScreen: BM-2	RC: None	NANO: Unknown	SUBSTANCE ROLE: Glass component

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
EYE	EU - GHS (H-Statements) Annex 6 Table 3-1	H319 - Causes serious eye irritation [Serious eye damage/eye irritation - Category 2A]
MAM	GHS - Japan	H335 - May cause respiratory irritation [Specific target organ toxicity - Single exposure - Category 3]
SKI	GHS - New Zealand	Skin irritation category 2
EYE	GHS - New Zealand	Eye irritation category 2
EYE	GHS - Japan	H318 - Causes serious eye damage [Serious eye damage / eye irritation - Category 1]
EYE	GHS - Australia	H318 - Causes serious eye damage [Serious eye damage/eye irritation - Category 1]

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
None found		No listings found on Additional Hazard Lists

SUBSTANCE NOTES: The Concentration varies with the panel composition and manufacturer.

CALCIUM MAGNESIUM CARBONATEID: 16389-88-1

HAZARD DATA SOURCE:Pharos Chemical and Materials LibraryHAZARD SCREENING DATE:2026-01-25 16:57:16

%:0.0000 - 15.0000GreenScreen:NoGSRC:NoneNANO:UnknownSUBSTANCE ROLE:Glass component

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
None found		No warnings found on HPD Priority Hazard Lists

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
None found		No listings found on Additional Hazard Lists

SUBSTANCE NOTES: The Concentration varies with the panel composition and manufacturer.

CALCIUM CARBONATEID: 1317-65-3

HAZARD DATA SOURCE:Pharos Chemical and Materials LibraryHAZARD SCREENING DATE:2026-01-25 16:57:17

%:0.0000 - 10.0000GreenScreen:BM-3dgRC:NoneNANO:UnknownSUBSTANCE ROLE:Glass component

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
None found		No warnings found on HPD Priority Hazard Lists

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
None found		No listings found on Additional Hazard Lists

SUBSTANCE NOTES: The Concentration varies with the panel composition and manufacturer.

SODA LIME

ID: 8006-28-8

HAZARD DATA SOURCE: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2026-01-25 16:57:17

%: 0.0000 - 5.0000

GreenScreen: LT-UNK

RC: None

NANO: Unknown

SUBSTANCE ROLE: Glass component

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
SKI	GHS - New Zealand	Skin corrosion category 1C
EYE	GHS - New Zealand	Serious eye damage category 1
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
None found		No listings found on Additional Hazard Lists

SUBSTANCE NOTES: The Concentration varies with the panel composition and manufacturer.

SULFURIC ACID DISODIUM SALT

ID: 7757-82-6

HAZARD DATA SOURCE: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2026-01-25 16:57:17

%: 0.0000 - 1.0000

GreenScreen: LT-UNK

RC: None

NANO: Unknown

SUBSTANCE ROLE: Glass component

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
MAM	GHS - Japan	H370 - Causes damage to organs [Specific target organs/systemic toxicity following single exposure - Category 1]
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
None found		No listings found on Additional Hazard Lists

SUBSTANCE NOTES: The Concentration varies with the panel composition and manufacturer.

CHROMIUM, METAL AND CHROMIUM(III) COMPOUNDS

ID: 19498-56-7

HAZARD DATA SOURCE: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2026-01-25 16:57:18

%: 0.0000 - 1.0000

GreenScreen: LT-UNK

RC: None

NANO: Unknown

SUBSTANCE ROLE: Glass component

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
SKI	MAK	Sensitizing Substance Sh - Danger of skin sensitization

ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v4.1 Product Standard Restricted Substances - Effective July 1, 2025 Children's Toy Products
SUBSTANCE NOTES:		

SODIUM NITRATE

ID: 15621-57-5

HAZARD DATA SOURCE: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2026-01-25 16:57:18	
%: 0.0000 - 1.0000	GreenScreen: LT-UNK	RC: None	NANO: Unknown SUBSTANCE ROLE: Glass component
HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS	
None found		No warnings found on HPD Priority Hazard Lists	
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION	
None found		No listings found on Additional Hazard Lists	
SUBSTANCE NOTES: The Concentration varies with the panel composition and manufacturer.			

LAMINATING INTERLAYER (WHEN LAMINATED)		%: 0.0000 - 10.0000
PRODUCT THRESHOLD: 100 ppm	RESIDUALS AND IMPURITIES EVALUATION COMPLETED: Yes	MATERIAL TYPE: Other: Not Set
RESIDUALS AND IMPURITIES NOTES: Residuals and Impurities are considered and noted when the concentration is above 100ppm		
OTHER MATERIAL NOTES:		

POLYVINYLBUTYRAL

ID: 63148-65-2

HAZARD DATA SOURCE: Pharos Chemical and Materials Library			HAZARD SCREENING DATE: 2026-01-25 16:57:18	
%: 0.0000 - 100.0000 ALT	GreenScreen: LT-UNK	RC: None	NANO: Unknown	SUBSTANCE ROLE: Film former
HAZARD TYPE	LIST NAME AND SOURCE		WARNINGS	
None found			No warnings found on HPD Priority Hazard Lists	
ADDITIONAL LISTINGS	LIST NAME AND SOURCE		NOTIFICATION	
None found			No listings found on Additional Hazard Lists	
SUBSTANCE NOTES: The Concentration varies with the panel composition and manufacturer.				
ALTERNATE: This substance is an alternate substance to Hexanedioic acid, 1,6-bis(2-butoxyethyl) ester.				

HAZARD DATA SOURCE: Pharos Chemical and Materials Library			HAZARD SCREENING DATE: 2026-01-25 16:57:19	
%: 0.0000 - 90.0000 ALT	GreenScreen: LT-UNK	RC: None	NANO: Unknown	SUBSTANCE ROLE: Sealant
HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS		
None found		No warnings found on HPD Priority Hazard Lists		
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION		
None found		No listings found on Additional Hazard Lists		
SUBSTANCE NOTES: The Concentration varies with the panel composition and manufacturer.				
ALTERNATE: This substance is an alternate substance to Hexanoic acid, 2-ethyl-, 1,2-ethanediylbis(oxy-2,1-ethanediyl) ester.				

HAZARD DATA SOURCE: Pharos Chemical and Materials Library			HAZARD SCREENING DATE: 2026-01-25 16:57:18	
%: 0.0000 - 85.0000	GreenScreen: LT-UNK	RC: None	NANO: Unknown	SUBSTANCE ROLE: Polymer species
HAZARD TYPE	LIST NAME AND SOURCE		WARNINGS	
None found			No warnings found on HPD Priority Hazard Lists	
ADDITIONAL LISTINGS	LIST NAME AND SOURCE		NOTIFICATION	
None found			No listings found on Additional Hazard Lists	
SUBSTANCE NOTES: The Concentration varies with the panel composition and manufacturer.				

HAZARD DATA SOURCE: Pharos Chemical and Materials Library			HAZARD SCREENING DATE: 2026-01-25 16:57:18	
%: 0.0000 - 35.0000	GreenScreen: LT-UNK	RC: None	NANO: Unknown	SUBSTANCE ROLE: Film former
HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS		
None found		No warnings found on HPD Priority Hazard Lists		
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION		
RESTRICTED LIST	Green Science Policy Institute (GSPI)	GSPI - Six Classes Precautionary List		
		Some Solvents		

SUBSTANCE NOTES: The Concentration varies with the panel composition and manufacturer.

CALCIUM CARBONATE

ID: 471-34-1

HAZARD DATA SOURCE: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2026-01-25 16:57:19

%: 0.0000 - 10.0000	GreenScreen: BM-3	RC: None	NANO: Unknown	SUBSTANCE ROLE: Binder
HAZARD TYPE	LIST NAME AND SOURCE		WARNINGS	
EYE	GHS - New Zealand		Eye irritation category 2	
ADDITIONAL LISTINGS	LIST NAME AND SOURCE		NOTIFICATION	
None found	No listings found on Additional Hazard Lists			

SUBSTANCE NOTES: The Concentration varies with the panel composition and manufacturer.

HEXANEDIOIC ACID, 1,6-BIS(2-BUTOXYETHYL) ESTER

ID: 141-18-4

HAZARD DATA SOURCE: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2026-01-25 16:57:19

%: 0.0000 - 10.0000 GreenScreen: NoGS RC: None NANO: Unknown SUBSTANCE ROLE: Binder		
HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
None found	No warnings found on HPD Priority Hazard Lists	
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
None found	No listings found on Additional Hazard Lists	

SUBSTANCE NOTES: The Concentration varies with the panel composition and manufacturer.

DICHROIC COATING

%: 0.0000 - 1.0000

PRODUCT THRESHOLD: 100 ppm RESIDUALS AND IMPURITIES EVALUATION COMPLETED: Yes MATERIAL TYPE: Polymeric Material

RESIDUALS AND IMPURITIES NOTES: Residuals and Impurities are considered and noted when the concentration is above 100ppm

OTHER MATERIAL NOTES:

MIXED METAL OXIDES			ID: Not Registered		
HAZARD DATA SOURCE: 3E Exchange Chemical Hazard Screening Library			HAZARD SCREENING DATE: 2023-02-10 8:02:16		
%: 100.0000 - 100.0000		GreenScreen: NoGS	RC: UNK	NANO: No	SUBSTANCE ROLE: Polymer species
HAZARD TYPE	LIST NAME AND SOURCE		WARNINGS		
None found			No warnings found on HPD Priority Hazard Lists		
ADDITIONAL LISTINGS	LIST NAME AND SOURCE		NOTIFICATION		
None found			No listings found on Additional Hazard Lists		
SUBSTANCE NOTES: The Concentration varies with the panel composition and manufacturer.					

Section 3: Compliance

This section lists applicable certification and standards compliance information for VOC emissions and VOC content. Other types of health or environmental performance testing or certifications completed for the product may be provided.

VOC EMISSIONS California Department of Public Health (CDPH) Standard Method v1.2: Private Office and School Classroom.

COMPLIANCE TYPE: Third Party
CERTIFIER/VERIFIER/TESTING LAB/AUDITOR: Intertek
Testing Services NA, Inc.
COMPLIANCE DETAILS:
COMPLIANCE SCOPE:
APPLICABLE FACILITIES: All
COMPLIANCE URL: https://sustainabilitydirectory-api-dmbzh6feegf0fqcc.eastus-01.azurewebsites.net/images/certificates/7477ae61-eeb8-4ba3-af8e-89ebb37e5b06_CA-33247-2025a.pdf
COMPLIANCE NOTES: Clean Air GOLD Certification states conformance to ANSI/ BIFMA e3-2019 standard credits 7.6.1, 7.6.2 and/or credit 7.6.3, which includes California Department of Public Health (CDPH) Standard Method v1.2 01350-2017, as well as conformance to low-emitting materials for WELL and LEED.

Section 4: Accessories

This section lists related products or materials that the manufacturer requires or recommends for installation (such as adhesives or fasteners), maintenance, cleaning, or operations. For information relating to the contents of these related products, refer to their applicable Health Product Declarations, if available.

VARIOUS MATERIALS
MANUFACTURER (OR GENERIC): Generic

HPD URL: no hpd available
ACCESSORY TYPE: Installation Accessory
CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES: Goldray Glass's products are installed using different accessories and/or framing systems chosen by designers, architects, engineers, and installers. These accessories and frames are manufactured using other materials. The materials will vary depending on the type of installation and final application. For information regarding these accessories, refer to the Health Product Declaration provided by the accessory or framing manufacturer.

Section 5: General Notes

Goldray Glass has several suppliers for Soda-lime glass. The suppliers have all confirmed that there are no residuals and/or impurities left on the surfaces of the glass.
All glass brought in from one of our suppliers has achieved a material health rating of Gold, their glass products have been tested, and the results show no exposure to carcinogens, mutagens, or reproductive toxicants. The glass product is fully optimized and contains no grey or x-assessed chemicals. Another supplier regularly analyzes all glasses with an elemental detection limit of 10 ppm maximum. Lead, Chromium, Arsenic, Antimony, Vanadium, and Cadmium may rarely be present in float glass as trace-level contaminants and are not present at a level greater than 20 ppm. Therefore they are not included in the Health Product Declaration. Cobalt, Selenium, and Nickel may be added to impart color to some tinted glasses. Cobalt is never present at a level greater than 300 ppm; Selenium is never at a level higher than 50 ppm; Nickel is typically not at a level higher than 200 ppm but can reach 800 ppm in some specific dark grey glass products.
The other suppliers did not provide any statement regarding the impurities present.

MANUFACTURER INFORMATION

MANUFACTURER: **Goldray Glass**
ADDRESS: **4605 52nd Avenue SE**
Calgary, Alberta T2C 4N7
COUNTRY: **Canada**

WEBSITE: **www.goldrayglass.com**
CONTACT NAME: **Prince Ruchogeza**
TITLE: **VP of Innovation & Sustainability**
PHONE: **800.640.3709**
EMAIL: **info@goldrayglass.com**

The listed contact is responsible for the validity of this HPD and attests that it is accurate and complete to the best of his or her knowledge.

KEY

Hazard Types

AQU Aquatic toxicity	LAN Land toxicity	PHY Physical hazard (flammable or reactive)
CAN Cancer	MAM Mammalian/systemic/organ toxicity	REP Reproductive
DEV Developmental toxicity	MUL Multiple	RES Respiratory sensitization
END Endocrine activity	NEU Neurotoxicity	SKI Skin sensitization/irritation/corrosivity
EYE Eye irritation/corrosivity	NF Not found on Priority Hazard Lists	UNK Unknown
GEN Gene mutation	OZO Ozone depletion	
GLO Global warming	PBT Persistent, bioaccumulative, and toxic	

GreenScreen (GS)

BM-4 Benchmark 4 (prefer-safer chemical)	LT-P1 List Translator Possible 1 (Possible Benchmark-1)
BM-3 Benchmark 3 (use but still opportunity for improvement)	LT-1 List Translator 1 (Likely Benchmark-1)
BM-2 Benchmark 2 (use but search for safer substitutes)	LT-UNK List Translator Benchmark Unknown
BM-1 Benchmark 1 (avoid - chemical of high concern)	NoGS No GreenScreen.
BM-U Benchmark Unspecified (due to insufficient data)	

GreenScreen Benchmark scores sometimes also carry subscripts, which provide more context for how the score was determined. These are DG (data gap), TP (transformation product), and CoHC (chemical of high concern). For more information, see 2.2.2.4 GreenScreen® for Safer Chemicals, www.greenscreenchemicals.org, and Best Practices for Hazard Screening on the HPDC website (hpd-collaborative.org).

Recycled Types

PreC Pre-consumer recycled content
PostC Post-consumer recycled content
UNK Inclusion of recycled content is unknown
None Does not include recycled content

Other Terms:

GHS SDS Globally Harmonized System of Classification and Labeling of Chemicals Safety Data Sheet

Inventory Methods:

Nested Method / Material Threshold	Substances listed within each material per threshold indicated per material
Nested Method / Product Threshold	Substances listed within each material per threshold indicated per product
Basic Method / Product Threshold	Substances listed individually per threshold indicated per product

Nano	Composed of nano scale particles or nanotechnology
Third Party Verified	Verification by independent certifier approved by HPDC
Preparer	Third party preparer, if not self-prepared by manufacturer
Applicable facilities	Manufacturing sites to which testing applies

The Health Product Declaration (HPD) Open Standard provides for the disclosure of product contents and potential associated human and environmental health hazards. Hazard associations are based on the HPD Priority Hazard Lists, the GreenScreen List Translator™, and when available, full GreenScreen® assessments. The HPD Open Standard is not:

- a method for the assessment of exposure or risk associated with product handling or use,*
- a method for assessing potential health impacts of: (i) substances used or created during the manufacturing process or (ii) substances created after the product is delivered for end use.*

Information about life cycle, exposure and/or risk assessments performed on the product may be reported by the manufacturer in appropriate Notes sections, and/or, where applicable, in the Certifications section.

The HPD Open Standard was created and is supported by the Health Product Declaration Collaborative (the HPD Collaborative), a customer-led organization composed of stakeholders throughout the building industry that is committed to the continuous improvement of building products through transparency, openness, and innovation throughout the product supply chain.

The product manufacturer and any applicable independent verifier are solely responsible for the accuracy of statements and claims made in this HPD and for compliance with the HPD standard noted.